

Abstract

An object of the present invention is to lower the sintering temperature required for a sintered body of yttrium-aluminum garnet, to improve the corrosion resistance of the sintered body and to prevent the reduction of the transmittance thereof. A sintered body of yttrium-aluminum garnet is produced from a source compound for yttrium and a source compound for aluminum using aluminum nitride as a sintering aid. It may be considered that aluminum nitride reacts with alumina and yttria to generate liquid phase and to reduce the sintering temperature during the sintering process.